

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-9. (Canceled)

10. (Currently amended) An information processing device for decoding information received from a remote device, the information being encoded with a first key and the first key being encrypted by a second key, the device comprising:

a security unit and a decoding unit, wherein the security unit comprises:

first authentication means for authenticating the decoding unit and generating a shared temporary key shared with the decoding unit;

first encrypting/decrypting means for decrypting the encrypted first key with the second key, and then encrypting the first key with the shared temporary key; and

transmitting means for transmitting the encrypted first key ~~and the temporary key generated by the first authentication means~~ to the decoding unit; and

the decoding unit comprises:

second authentication means for authenticating the security unit and generating the shared temporary key shared with the security unit;

receiving means for receiving the encrypted first key ~~and the temporary key~~ from the security unit; and

second decrypting means for decrypting the encrypted first key with the shared temporary key;

wherein the decoding unit decodes the information with the first key obtained by the second decrypting means.

11. (Currently amended) An information processing method for decoding information received from a first device, wherein the information is encoded with an encrypted first key, comprising:

a first storage step of storing the encrypted first key in a memory of a security unit in a second device, wherein the encrypted first key is encrypted by a second key;

a first authentication step of authenticating a first decoding step and generating a shared temporary key, the shared temporary key being shared with a decoding unit in the second device in the first decoding step;

a first encrypting/decrypting step of decrypting the encrypted first key with the second key, and encrypting the first key with the shared temporary key;

~~transmitting the encrypted first key and the temporary key generated in the first authentication step to [[a]] the decoding unit in the second device;~~

~~the first decoding step including a second mutual authentication step of authenticating the first storage step and generating the shared temporary key shared with the security unit in the second device;~~

~~receiving the encrypted first key and the temporary key;~~

~~a second decrypting step of decrypting the encrypted first key with the shared temporary key; and~~

a second decoding step of decoding the information with the first key obtained by the second decrypting step.

12. (Currently amended) A program providing medium for providing a computer-readable program to cause an information processing device to perform a method for decoding information received from a first device, wherein the information is encoded with an encrypted first key, the method comprising:

a first storage step of storing the encrypted first key in a memory of a security unit in a second device, wherein the encrypted first key is encrypted by a second key;

a first authentication step of authenticating a first encrypting/decrypting step and generating a shared temporary key, the shared temporary key being shared with a decoding unit in the second device in the first encrypting/decrypting step;

the first encrypting/decrypting step including decrypting the encrypted first key with the second key and including encrypting the first key with the shared temporary key;

transmitting the encrypted first key with the temporary key to [[a]] the decoding unit in the second device;

the program causing a decoding means to execute processing comprising:

a second authentication step of authenticating the first storage step and generating the shared temporary key shared with the security unit in the second device;

receiving the encrypted first key with the temporary key from the first storage step;

a second decrypting step of decrypting the encrypted first key with the shared temporary key; and

a third encrypting/decrypting step of decoding the information with the first key obtained by the second encrypting/decrypting step.

Claims 13-71. (Canceled)